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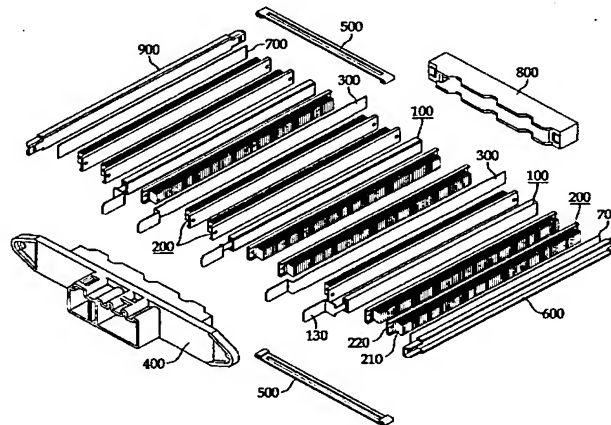
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- (71) Applicant (for all designated States except US): **WOORY INDUSTRIAL COMPANY, LTD.** [KR/KR]; #516-1, Youngduck-ri, Kiheung-eub, Yongin-si, Kyongki-do 449-908 (KR).
- (72) Inventor; and
- (75) Inventor/Applicant (for US only): **LEE, Sung-Young** [KR/KR]; 102-408 Byucksan Apt., #23 Yangpyeong-dong 2-ga, Yeongdeungpo-gu, Seoul 150-102 (KR).
- (74) Agent: **INTERNATIONAL INTELLECTUAL PROPERTY LAW FIRM "HONESTY & PATENT"**; Kukdong Bldg. 20F 60-1, Chungmuro 3-KA, Chung-Ku, Seoul 100-705 (KR).
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(54) Title: **HEAT ROD ASSEMBLY AND PRE-HEATER FOR VEHICLES INCLUDING THE SAME**



(57) Abstract: Disclosed are a heat rod assembly and a pre-heater for vehicles including the same. The heat rod assembly includes a channel type lower heat rod 110, an insulator installed at a bottom portion of the lower heat rod 110, a positive terminal 130 fixedly installed on the insulator 120 lengthwise along the insulator 120, a PTC device 140 coupled to the insulator 120 by interposing the positive terminal 130 therebetween, and an upper heat rod 150 for covering an opening section of the lower heat rod 110. The pre-heater includes a heat rod assembly 100, a heat pin assembly 200 formed at both sides of the heat rod assembly 100 in parallel to each other, a negative terminal 300 aligned in parallel to the heat pin assembly 200, side frames 600 and 900 coupled to both sides of a coupling structure consisting of the heat rod assembly 100, the heat pin assembly 200 and the negative terminal 300, and housings 400 and 800 for coupling the heat rod assembly 100, the heat pin assembly 200, the negative terminal 300, and the frames 600 and 900 with each other at front and rear portions thereof. Components of the pre-heater, such as the heat rod assembly, are fabricated as module units, so assembling work and repair work for the pre-heater is easily carried out, thereby improving productivity.

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